# HEALTH AND SAFETY PLAN FOR TRAVELING IN THE FORMER SOVIET UNION

## - OUTLINE -

All Los Alamos travelers to the Former Soviet Union (FSU) should develop a Safety Plan that reflects trip-specific issues. The following outline is offered as a guide for the development of individual plans.

Travel to FSU countries is a necessary and integral part of many DOE and other Los Alamos National Laboratory programs in support of US national security interests. There are risks associated with this travel that are specific to the countries and sites being visited. This outline is intended to guide the traveler in identifying and analyzing the risks associated with such travel, and in specifying actions that will control and mitigate them. It makes provision for the feedback of experience and new information that will assist the Laboratory to enhance the safety of future travel.

Travel to FSU by persons associated with Laboratory programs, whether LANL staff or contractors, is on a voluntary basis. Each individual makes a personal assessment of the risks and can choose not to go without prejudice.

# Six-Step Approach to Development of the Health and Safety Plan:

## A. DEFINE SCOPE OF WORK

There are generally four types of activities that can occur as part of the work associated with travel to the FSU. Activities anticipated during this trip should be indicated with an "x".

()	Meetings to discuss program issues.
()	Laboratory work on installation and maintenance of equipment and/or using equipment to make measurements.
()	Touring of FSU nuclear facilities.
()	Training of FSU technical staff.
()	Other (describe):

## B. IDENTIFY AND ANALYZE HAZARDS

Hazards should be identified for each site being visited. Traveler should consult general resources, FSU hosts, previous travelers to the same or similar destinations, and other sources in order to develop a full understanding of potential health and safety risks associated with the specific trip. Particular hazards should be described

in this section, and planned steps to control and mitigate them should be described in Section C.

- 1. There are hazards associated with travel in general to and within the FSU. These include:
  - a. Transportation to and from the site being visited
  - b. Local hazards e.g. crime, water, food, air, extreme climate
  - c. Background radiation
  - d. Diseases transmitted by insects, air or drinking water
  - e. Jet lag
  - f. Electrical, e.g., 220v, different plugs
- 2. There are hazards associated with lab work similar to those found if the work were being done at LANL and some that are specific to FSU labs:
  - g. Electrical
  - h. Mechanical
  - i. Radiation

The US visitors should have a plan in place for their equipment and discuss the plan with their Russian colleagues. (FSU hosts should be asked if they have a comparable plan for the work planned using their equipment.)

- 3. There are possible site-specific hazards associated with touring FSU facilities.
  - j. High radiation fields
  - k. Contamination
  - 1. Mechanical, e.g., irregular stair step heights, high doorway thresholds, etc.
- 4. During training, there should be a Health and Safety plan for the course and the plan could be included in the syllabus for the course.

#### C. DEVELOP AND IMPLEMENT CONTROLS ON HAZARDS

At the end of each numbered subsection below, traveler should enter one or more paragraphs indicating specifically whether the recommended steps have been taken, and what additional measures have or will be taken to mitigate potential risks identified in Section B above.

#### Potential Hazard:

- 1. Transportation to site being visited:
  - a. Obtain up-to-date information on safety record and status of airlines providing service to specific site being visited.
  - b. Obtain information on alternate means of transportation, such as train, vehicle, or charter airlines, in order to enable an informed choice of the safest reasonable means of reaching your destination.
  - Monitor worldwide and country specific travel advisories from the State Department. Such advisories can be tracked through the Los Alamos FSU Travel page on the web.
  - d. First time travelers should contact Terry Roth ISEC 667-4840 for a briefing on appropriate cautions associated with travel in the FSU.
- 2. Local hazards. e.g. crime, water, food, air, extreme climate,
  - a. Use Department of State travel advisories, advice from Russian hosts, and experience of previous travelers to take controlling measures, e.g., travel in groups, take bottled drinking water, don't buy food on the street, etc.
  - b. Monitor State Department travel advisories up to and after (if possible) the commencement of travel.

# 3. Background radiation

- a. Carry a dosimeter that can give real-time dose rates or cumulative doses.
- b. Learn how to interpret dosimeter reading in terms of hazards.
- c. Take the LANL basic radiation safety course.
- 4. Diseases transmitted by insects, air or drinking water
  - a. Obtain information on local disease hazards e.g. from WHO bulletins, CDC travel information, LANL HSE information.
  - b. Ask HSE for advice on inoculations and preventative medicines to take before leaving.
  - c. Obtain medical kits from HSE.
  - d. Avoid sources of infection, e.g., take water filtration equipment, use insect repellent.

# 5. Jet lag

- a. Remember that jet lag may affect your judgment and ability to do mechanical operations. Avoid doing hazardous operations including driving your car home at the end of a long trip.
- b. Look into ways to mitigate jet lag effects.
- 6. Electrical power differences between FSU and US
  - Familiarize yourself with differences in plugs and receptacles, using only certified adapters. Be aware of extra hazards associated with the higher voltage, 220V.
- 7. Electrical hazards in laboratory conditions
- 8. Mechanical hazards in laboratory conditions
- 9. Radiation hazards in laboratory conditions
- 10. High radiation fields at tour locations
- 11. Contamination at tour locations
- 12. Mechanical hazards at tour locations
- 13. Health and Safety Plan for training course(s)

#### D. TAKE APPROPRIATE PRECAUTIONARY MEASURES

At the end of each numbered subsection below, traveler should enter one or more paragraphs indicating specifically what steps have been taken.

- In general, persons should not travel alone. First time travelers should never
  travel alone, and even seasoned travelers should consider this issue very carefully.
  If traveling as part of a team that will come together en route, make explicit plans
  for where and when team members will assemble prior to entry. Include
  contingency plans for the possibility that travel plans may go awry and team
  members may become separated.
- 2. Obtain and carry information about how to deal with emergency medical situations.
  - a. The Laboratory has Worldwide Assistance available to its employees on travel outside the US. Become familiar with these procedures and carry copies of the checklist at all times
  - b. Fill out and carry a personal medical information form, and ensure that at least one other person in your group has a copy.
- 3. Establish in advance a communication plan with your Laboratory organization.

A good communication plan serves at least two important functions. It enables the traveler to be apprised of changes in external circumstances that may affect travel safety. In addition, it provides a positive means for the Laboratory to be aware the status of travelers, and to react if circumstances warrant.

- a. Make explicit arrangements to contact your Group or other Laboratory organization on a specified regular basis (2-3 days) during travel, e.g., by telephone or electronic mail.
- b. Make arrangements in advance with your hosts for regular access to the means of communication.
- c. Ensure that your Laboratory organization has a reliable way to contact you during your travel. This should include name(s) of host(s) and hotel(s) along with telephone numbers.
- d. The Laboratory is considering pre-emplacing a certain number of worldwide satellite phones, e.g., Iridium, at selected sites for the use of Laboratory travelers. When this action is taken, notice will be posted on the FSU Travel page. Traveler should check the availability of this means of communication.
- e. Implement this communication plan faithfully during travel.
- 4. Develop a plan in advance to deal with disruption in travel or work arrangements, e.g., airline strikes, work stoppages, civil disorders, etc.

In spite of the best information and the best-laid plans, travelers may yet encounter unanticipated circumstances that affect travel safety. Some thoughtful advance preparation may prove very important.

- a. Think in advance about those circumstances that may change the health and safety risk assessment developed in sections B and C above. Examples include, but should not be limited to, problems with planned transportation or accommodation, unforeseen outbreak of disease, and civil disorder. How would you deal with such situations? What criteria would come into play in deciding whether the best course of action would be to stay in place? With whom, and how would you communicate concerning the situation?
- b. Consider in advance what alternative means of travel may be available for return to the U.S. Such consideration may include identification of other means of transportation to alternative regional airports, and available ground transportation. Locate and take copies of alternative airline schedules.

#### E. PERFORM TRAVEL

# F. FEEDBACK

1. Include Health and Safety issues and recommendations in the trip report

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2. Provide a copy of any Health and Safety related issues and recommendations to the Russian Nonproliferation Programs Office, MS K760